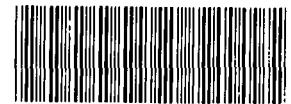


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EG&G ROCKY FLATS

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February 9, 1993

93-RF-1766

Frazer R. Lockhart
Environmental Restoration Division
DOE, RFO

Attn: S. R. Surovchak

MEETING MINUTES FOR OU-4 JANUARY 26, 1993 MEETING WITH DOE, EPA, CDH AND EG&G
ROCKY FLATS, INC. - EML-143-93

Please find attached three (3) copies of the subject document. Due to the significance of the verbal agreements obtained from the Environmental Protection Agency (EPA) and Colorado Department of Health (CDH) relative to the general strategy of the OU-4 Phase RFI/RI program, EG&G Rocky Flats, Inc. requests that the meeting minutes be transmitted to the regulatory agencies at the earliest possible date for formal approval.

If you have any questions regarding the attached, please contact R. T. Ogg of my staff on 966-8608.

E. M. Lee

E. M. Lee
Program Manager
Solar Ponds Remediation

RTO:apt

Orig. & 1 cc - F. R. Lockhart

CLASSIFICATION:

Attachments:
As Stated

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REPLY TO RFP CC NO:

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DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
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A-DU04-000461

Meeting Minutes
OU4 Solar Ponds Project Status
January 26, 1993

An OU4 project status meeting was held on January 26, 1993 at 1:00 PM, at the Colorado Department of Health Offices, 700 S. Ash, Denver, CO. An agenda is attached. The following people were in attendance:

<u>Name</u>	<u>Affiliation</u>	<u>Phone</u>
Mr. Arturo Duran	USEPA	294-1080
Mr. Harlen Ainscough	CDH	692-3337
Ms. Caren Johannes	CDH	692-3347
Mr. Scott Surovchak	USDOE	966-3551
Mr. Randy Ogg	EG&G	966-8608
Mr. Steve Paris	EG&G	966-8543
Ms. Kim Ruger	EG&G	966-8608
Mr. Willis Wilcoxon	PRC Env Mgt	295-1101
Ms. Shaleigh Whitesell	PRC Env Mgt	295-1101
Ms. Barb Neary	Applied Environmental	469-6660
Mr. Tom Henderson	Applied Environmental	694-6660
Mr. Henry Leighton	Applied Environmental	469-6660
Mr. Frank Blaha	Wright Water Engineers	480-1700

Introductions were made followed by a general discussion regarding disposition of these meeting minutes. The minutes are scheduled for transmittal from EG&G to DOE within two weeks of the meeting date, February 9, 1993. Mr. Ogg then moved on to the formal agenda items.

Agenda Item I - Location of Supplemental Boreholes and Vadose Zone Monitoring Locations

Discussion began with Mr. Ogg briefly explaining the materials that had been brought to the meeting to support the rationale for the supplemental borehole and vadose monitoring locations. He explained that the proposed Phase I boring locations within Ponds 207B and 207C were inaccessible due to the presence of liquids/sludges still within the ponds. In addition, the schedule for removal of the pond liquids/sludges proposed by RFP Operations conflicts with the Phase I RFI/RI program schedule.

Mr. Ogg then gave a brief explanation of each proposed new borehole location around Pond 207C and the B-series ponds and the supporting rationale. The rationale included consideration of the following: keeping the location as close as possible to a suspected contaminant source, drilling equipment logistics, and obtaining EG&G construction management concurrence with respect to avoidance of buried utilities.

CDH questioned any potential hindrance to drilling caused by the concrete access barriers that block berm access and the reasoning behind the move of borehole 40993. Mr. Ogg indicated the barriers could be moved and addressed the 40993 move to the satisfaction of the group. Other questions were asked regarding the status of the pond emptying activities, especially the issue of exactly when the removal operation was to begin, and if DOE was anticipating returning to the ponds at a later date to perform drilling and sampling. Mr. Surovchak addressed this issue, agreeing with the EPA representative that future sampling would be prudent once

emptying activities were complete. Mr. Duran reiterated the need to formally recognize the necessity to revisit the ponds at a later date; not just "consider" revisiting.

Mr. Ainscough questioned the correlation of the proposed relocations to suspected preferential flowpaths presented in the Vadose Zone Technical Memorandum. Mr. Henderson distributed maps of the pathways and Mr. Blaha gave a brief historical overview of site activities to support the theory of the pathways, and answered questions regarding the construction of the ponds and the old interceptor trenches. Additional questions about bedrock surface features gave way to extended discussion of the relationship between bedrock surface, preferential pathways, and the proposed borehole locations. EPA added discussion emphasizing the virtue of revisiting 207B and 207C ponds once they are emptied. Mr. Surovchak reiterated that DOE was not intending to replace the boreholes located within the ponds with these proposed boreholes.

The location of Borehole 43193 was proposed based on review of historical contaminant data and based on recent interpretations of irregular bedrock surface in the area. Borehole 42993 was proposed to be changed from a deep geologic boring to a shallow borehole completed as a piezometer. The data regarding local groundwater conditions in the vicinity of borehole 42993 was explained to be more beneficial data than bedrock geology in this instance. Borehole 44293 was proposed to be deleted due to its distant location from the solar ponds and presence of geologic data from existing wells in the vicinity. Borehole 41893 was proposed to be deleted because it is outside the OU4 boundary and not within suspected contaminant migration pathways. Borehole 44493 was proposed to be deleted because it was unable to be cleared in that location due to the presence of several underground utilities. In addition, existing wells drilled prior to utility installation are very near 44493 and will provide valuable data. The proposed location of Borehole 42094 differs from that proposed in the Vadose Zone Technical Memorandum. It was relocated from due west of Building 788 (Pond 207C) to a location off the northeast corner of Pond 207C. The relocation was necessary due to rig access and will provide needed data on suspected contaminant migration pathways. Finally, it was proposed that Borehole 41093 be deleted because the increased number of boreholes north of Pond 207C minimizes the data need and cost effectiveness of this borehole. As discussed later in these meeting minutes, all of the proposed items were verbally approved by the agencies.

An inquiry was made as to the validity of the 1989 data (ie., data from existing wells), and Mr. Ogg felt that the cleanup level specified in the IAG was restrictive enough to ignore the validity question with respect to final disposition of the property.

Agenda Item II - Innovative Drilling - Horizontal/Angled

Mr. Ogg began the discussion of this item by presenting a brief background of the need for horizontal drilling and the recognition that there is a specific need to collect data under the ponds. He outlined the overall proposal of drilling an east-west borehole from the east side of each B series pond, approximately 1'-3' beneath pond bottom elevation, and a north-south borehole beneath pond 207C, at a similar depth, drilled from the mid-point of the north pond berm. Mr. Ogg emphasized the concern over the potential for pond liner damage and for breaching the liner, causing an undesirable discharge of pond contents into the environment.

CDH/EPA Meeting Minutes

Page 3

CDH questioned the expense of such activities, and there was extended discussion over estimated costs for horizontal drilling, as well as available methodologies, the need to have a contingency plan in place, the desire to use horizontal drilling and methods that avoid the generation of drill cuttings. General statements were made by Mr. Ogg regarding preliminary cost figures that were reasonable with respect to vertical drilling. He emphasized that current cost estimates were only preliminary and, should prohibitive costs become an issue, he would certainly be in contact with the regulatory agencies.

There was more discussion over pond construction assumptions, liability issues, conceptual sampling scenarios, and overall applicability/utility of the horizontal drilling application. CDH commented that the desire to sample close to the pond liner may be dangerous and the potential downfall to the activity. EPA was particularly concerned about the long term utility of the application of horizontal drilling with respect to streamlining the schedule and usefulness of the data gathered. In general, Mr. Duran was concerned that utilization of horizontal drilling would not get the site any closer to closure, especially since vertical drilling and sampling would be conducted once the ponds were drained and cleaned. EPA stated they would prefer to wait on drilling under the ponds.

Mr. Ainscough did not necessarily agree with the suggestion to wait and drill under the ponds once cleaned. He stated that he felt the pond cleanout schedule contained some float with respect to the February 1994 completion date and the actual date when the ponds could be accessible for drilling operations. In addition, he said that proceeding with evaluation and/or implementation of horizontal drilling would benefit the RFI, and could provide information on characterizing the source and soils. There was also general discussion as to whether collecting uncontaminated soils beneath a pond would be as useful as contaminated soils, given the overall uncertainty of horizontal drilling results. The consensus was that all information is useful for establishing an extent of contamination. He also felt that should the cost escalate significantly over Mr. Ogg's preliminary figures it would be wise to re-evaluate at that time, but that implementation of the horizontal drilling could put the OU4 work that much farther ahead. DOE emphasized that acquiring the data would be extremely valuable, not just research.

Agenda Item III - Deletion of Analytical/Geologic Boreholes

This item was basically discussed as a part of Agenda Item I although Mr. Ainscough wished to clarify whether these were deletions or deferrals to a later date. Mr. Surovchak stated that these were in fact deletions and recalled the justification information that was presented earlier. This question lead the group into the next agenda item.

Agenda Item IV - Work Plan Deviations

IV a. Deletion of Boreholes

Mr. Ainscough felt that a method of addressing these changes would be the vehicle of the Technical Memorandum (TM), such as the TM prepared for OU6 as an example. He did emphasize that a TM can be as simple as one or two pages; it is not required to be of a scope similar to the OU4 Vadose Zone TM.

CDH/EPA Meeting Minutes

Page 4

This lead into general conversation as to what constitutes either a minor or major change to a stated program objective. The example of moving a borehole location by fifty to one hundred feet was agreed to fit the overall definition of a minor change. Contingency locations of the boreholes/vadose zone wells initially intended to be within the ponds was agreed to constitute a major change. An additional example of a major change was the relocation of the piezometer banks from the locations described in the work plan, as follows.

IV b. Piezometer Banks: PZ01, PZ04

Piezometer bank relocations were proposed based on recent interpretations of preferential pathways, as well as the issue of drill rig accessibility to the original locations. In response to a question by Mr. Duran, Mr. Blaha discussed the relationship of the ITS system to bedrock surface, and how this interface affects the ITS performance. He also described the need to update the piezometer locations due to increasing knowledge of local groundwater conditions, bedrock conditions, and being able to adapt as new data are collected. Mr. Ainscough agreed on the need to be adaptable; to not be overly focused on the work plan. He also felt that documentation of these relocations could be well suited to the TM scenario.

IV c. Document Change Notices (DCN)

Mr. Ogg wished to know how the regulatory agencies desired to handle accounting of DCN items. He used the example of analytical prioritization in instances when core recovery was low and there was inadequate sample material to analyze for the complete suite. The priority listing in the Vadose Zone TM was discussed as an example of how to categorize important analyses versus less than necessary analyses. Tritium concerns were expressed as well as those for VOC sampling. Mr. Ainscough was in agreement to use the TM priority listing, but wished to see the issue presented in a written format to which he could give conditional approval.

Mr. Surovchak further pursued the general issue of DCNs. It was agreed that the existing informal procedure was acceptable where DOE informs both Mr. Ainscough and Mr. Duran by phone to explain the general nature of issues as they arise. This phone contact would be followed up by a letter.

Agenda Item VI - Schedule

Mr. Ogg began the review of the schedule status by giving the group a briefing on overall project progress, maintaining that all personnel involved were making a diligent effort to minimize impact to the IAG. He stated that the anticipated submittal date of the draft RFI report had slipped to May 1994, approximately one year behind schedule. Mr. Surovchak supported Mr. Ogg and added that all parties needed to realize that certain aspects of the program were out of his immediate control.

Mr. Ainscough then lead into a general review of program activities that followed the conditional approval of the work plan that was granted on May 8, 1992. Mr. Ogg presented the scope and relative chronologic position of the activities that had occurred to date. Mr. Duran felt that certain activities should have occurred more promptly. There was further discussion of events following the conditional approval date including: procurement activities, contract award,

CDH/EPA Meeting Minutes

Page 5

training requirements, personnel reassignments, definition of the scope of the Applied Environmental contract, specific planning document preparation, and delay to the technical evaluation of the OU4 proposals.

Mr. Duran stated that the EPA does not consider delayed procurement activities as appropriate justification to lengthen a schedule, and that internal EG&G problems should have no bearing upon schedule issues. Mr. Surovchak stated that attorneys would have to decide upon that question. Mr. Ainscough stated that this format was inappropriate for the "negotiation" direction in which the conversation was heading. He also stated that Mr. Ogg and Mr. Surovchak should prepare a written request for extension of the schedule. This request should chronicle all events from the conditional approval date until the present in order to adequately describe the situation for justification purposes. Mr. Ainscough also wished that a listing of both required training courses and necessary permits be prepared for his review.

Mr. Duran inquired when a TM for horizontal drilling could be expected. Mr. Ogg said it could be prepared within four to six weeks. Content of the TM should cover the aspects of cost and reliability, in addition to revisiting the issue of overall applicability of the horizontal drilling aspect to the goals of the OU4 program. Mr. Duran reiterated his position regarding the horizontal drilling applicability but recognized the RFI report would be incomplete without vertical drilling in the ponds. He also recognized the advantages horizontal drilling could provide by generating data to justify or refute the need for vertical drilling once the ponds have been emptied.

Current progress of the field program was then discussed, and the group became aware of the immediate needs of the field program with respect to approval of the proposed borehole locations. It was agreed upon by the regulators to verbally approve the piezometer bank relocations, the new pond 207B and 207C borehole/vadose zone locations, and the proposed borehole deletions. Documentation to support the verbal approvals was agreed to be submitted to the regulators within six weeks and would include a discussion of the preferential pathways and buried drainage channels. A second TM should be submitted within this same time period to address the issue of horizontal drilling beneath ponds 207B and 207C.

Agenda Item VII - Miscellaneous Items

VII a. RCRA Monitoring Wells

This item was included for Mr. Ogg to inform the group of the intent to coordinate OU 4 RFI boring efforts with the Well Abandonment and Replacement Program. In an attempt to economize, Mr. Ogg feels that OU4 could potentially incorporate RCRA monitoring well installation into four RFI/RI boreholes. This corresponds with the needs of the WARP program. Ms. Johannes agreed that this would be a beneficial step and suggested that she could be of assistance if needed.

VII b. <100% Data Validation

This topic was suggested for discussion because Mr. Surovchak and Mr. Ogg are of the option

CDH/EPA Meeting Minutes
Page 6

that the current EG&G practice of 100% data validation was not only excessive when such stringent QA/QC of laboratory procedures is mandated by DOE, but also could potentially cause additional delays to the IAG schedule. Mr. Ainscough agreed that 100% was excessive. Mr. Duran felt that the level of data evaluation was up to the EPA and that he would like the opportunity to investigate the issue with his experts.

VII c. Piezometer Installations in RI/RFI Boreholes

Mr. Ogg included this item to gain concurrence from the regulators on the idea of taking advantage of the RI/RFI sampling activities by placing piezometers in selected boreholes in order to fill in data gaps in existing wells. There was general agreement that, although this was better suited to the Phase II activities, the data would be valuable now, necessary ultimately, and that the idea was economically sound.

VIII d. EPA/CDH Comments

There were no further specific comments made by any parties present. To clarify the data validation issue, Mr. Ainscough stated that a DCN would be sufficient to cover any proposed change to the specific level of validation to be accomplished. Mr. Duran wished to know the status/background of radiation surveys that had been completed to date. Mr. Ogg informed him that the surveys had been completed in all areas except within the radiologically controlled area (RCA), and that there were no significantly elevated readings. It was stated that radiological survey reports would be forwarded to the agencies.

There was general discussion of recent findings regarding the investigation of the vadose zone, and implications of an apparent seasonal nature. A brief discussion on the merits of the Phase I/Phase II concept followed.

The meeting was adjourned at approximately 4:00 PM.